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## SYSTEM FOR COUPLING A MOBILE RADIO SERVICE BASE STATION TO AN ANTENNA

### Abstract of the Disclosure

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Coupling one or more receivers and transmitters of a base station to an antenna in a cellular-like commercial mobile radio services (CMRS) system. The antenna is coupled to a receive path and to a transmit path via a circulator. Each receive path comprise one or more receive branch networks, whereas each transmit path comprise one or more transmit branch networks. A transmitter is coupled to the transmit path via a transmit branch network, while a receiver is coupled to the receive path via a receive branch network. Each transmit and receive branch network typically comprises a filter and ferrimagnetic circulator. A transmitter can originate a transmit signal, which is processed by a transmit branch network coupled between the transmitter and a node of the transmit path. This transmit branch network can pass this processed transmit signal with the output signal of other transmitter branch networks in the upstream direction of the transmit path for forwarding to antenna. Signals received by the antenna are coupled to various receiver branch networks that operate to separate and extract the signals for corresponding receivers. Each receive branch network is coupled between a corresponding receiver and a node of the receive path. A receive branch network can filter the received signal for processing by a corresponding receiver, while also passing received signals to the downstream portion of the receive path.

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